

(B) LOCATION: 2, 4-7, 9-11, 13-17, 19, 22-25, and 27-32
(D) OTHER INFORMATION: where Xaa at the above positions is Ala, Arg, Asn, Asp, Cys, Glu, Gln, Gly, His, Ile, Leu, Lys, Met, Phe, Pro, Ser, Thr, Trp, Tyr, or Val; Xaa at positions 6 or 7 may be missing; Xaa at position 25 may be missing; Xaa at positions 29, 30, 31, or 32 may be missing

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

(2) INFORMATION FOR SEQ ID NO:2:

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

(2) INFORMATION FOR SEQ ID NO:3:

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

(2) INFORMATION FOR SEQ ID NO:4:

(ii) MOLECULE TYPE: Genomic DNA

(ix) **FEATURE:**

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CTC | GAG | CCC | TAT | GCT | TGC | CCT | GTC | GAG | TCC | TGC | GAT | CGC | CGC | TTT | TCT | 48 |
| Leu | Glu | Pro | Tyr | Ala | Cys | Pro | Val | Glu | Ser | Cys | Asp | Arg | Arg | Phe | Ser | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | |
| CGC | TCG | GAT | GAG | CTT | ACC | CGC | CAT | ATC | CGC | ATC | CAC | ACA | GGC | CAG | AAG | 96 |
| Arg | Ser | Asp | Glu | Leu | Thr | Arg | His | Ile | Arg | Ile | His | Thr | Gly | Gln | Lys | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| CCC | TTC | CAG | TGT | CGA | ATA | TGC | ATG | CGT | AAC | TTC | AGT | CGT | AGT | GAC | CAC | 144 |
| Pro | Phe | Gln | Cys | Arg | Ile | Cys | Met | Arg | Asn | Phe | Ser | Arg | Ser | Asp | His | |
| | | | 35 | | | | 40 | | | | | 45 | | | | |
| CTT | ACC | ACC | CAC | ATC | CGC | ACC | CAC | ACA | GGC | GAG | AAG | CCT | TTT | GCC | TGT | 192 |
| Leu | Thr | Thr | His | Ile | Arg | Thr | His | Thr | Gly | Glu | Lys | Pro | Phe | Ala | Cys | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| GAC | ATT | TGT | GGG | AGG | AAG | TTT | GCC | AGG | AGT | GAT | GAA | CGC | AAG | AGG | CAT | 240 |
| Asp | Ile | Cys | Gly | Arg | Lys | Phe | Ala | Arg | Ser | Asp | Glu | Arg | Lys | Arg | His | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| ACC | AAA | ATC | CAT | TTA | AGA | CAG | AAG | GAC | ACT | AGT | | | | | | 273 |
| Thr | Lys | Ile | His | Leu | Arg | Gln | Lys | Asp | Thr | Ser | | | | | | |
| | | | | 85 | | | | | 90 | | | | | | | |

(2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 91 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(v) FRAGMENT TYPE: internal

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Leu | Glu | Pro | Tyr | Ala | Cys | Pro | Val | Glu | Ser | Cys | Asp | Arg | Arg | Phe | Ser | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | |
| Arg | Ser | Asp | Glu | Leu | Thr | Arg | His | Ile | Arg | Ile | His | Thr | Gly | Gln | Lys | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Pro | Phe | Gln | Cys | Arg | Ile | Cys | Met | Arg | Asn | Phe | Ser | Arg | Ser | Asp | His | |
| | | | 35 | | | | 40 | | | | | 45 | | | | |
| Leu | Thr | Thr | His | Ile | Arg | Thr | His | Thr | Gly | Glu | Lys | Pro | Phe | Ala | Cys | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Asp | Ile | Cys | Gly | Arg | Lys | Phe | Ala | Arg | Ser | Asp | Glu | Arg | Lys | Arg | His | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Thr | Lys | Ile | His | Leu | Arg | Gln | Lys | Asp | Thr | Ser | | | | | | |
| | | | | 85 | | | | | 90 | | | | | | | |

(2) INFORMATION FOR SEQ ID NO:6:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(vii) IMMEDIATE SOURCE:

- (B) CLONE: FTX3

| Case | Age | Sex | Duration | Location | Findings | Comments |
|------|-----|-----|----------|-----------|-------------------------------|----------|
| 1 | 14 | M | 10 days | Left eye | Small, dark, pigmented lesion | Benign |
| 2 | 15 | F | 12 days | Right eye | Small, dark, pigmented lesion | Benign |
| 3 | 16 | M | 14 days | Left eye | Small, dark, pigmented lesion | Benign |
| 4 | 17 | F | 16 days | Right eye | Small, dark, pigmented lesion | Benign |
| 5 | 18 | M | 18 days | Left eye | Small, dark, pigmented lesion | Benign |
| 6 | 19 | F | 20 days | Right eye | Small, dark, pigmented lesion | Benign |
| 7 | 20 | M | 22 days | Left eye | Small, dark, pigmented lesion | Benign |
| 8 | 21 | F | 24 days | Right eye | Small, dark, pigmented lesion | Benign |
| 9 | 22 | M | 26 days | Left eye | Small, dark, pigmented lesion | Benign |
| 10 | 23 | F | 28 days | Right eye | Small, dark, pigmented lesion | Benign |
| 11 | 24 | M | 30 days | Left eye | Small, dark, pigmented lesion | Benign |
| 12 | 25 | F | 32 days | Right eye | Small, dark, pigmented lesion | Benign |
| 13 | 26 | M | 34 days | Left eye | Small, dark, pigmented lesion | Benign |
| 14 | 27 | F | 36 days | Right eye | Small, dark, pigmented lesion | Benign |
| 15 | 28 | M | 38 days | Left eye | Small, dark, pigmented lesion | Benign |
| 16 | 29 | F | 40 days | Right eye | Small, dark, pigmented lesion | Benign |
| 17 | 30 | M | 42 days | Left eye | Small, dark, pigmented lesion | Benign |
| 18 | 31 | F | 44 days | Right eye | Small, dark, pigmented lesion | Benign |
| 19 | 32 | M | 46 days | Left eye | Small, dark, pigmented lesion | Benign |
| 20 | 33 | F | 48 days | Right eye | Small, dark, pigmented lesion | Benign |
| 21 | 34 | M | 50 days | Left eye | Small, dark, pigmented lesion | Benign |
| 22 | 35 | F | 52 days | Right eye | Small, dark, pigmented lesion | Benign |
| 23 | 36 | M | 54 days | Left eye | Small, dark, pigmented lesion | Benign |
| 24 | 37 | F | 56 days | Right eye | Small, dark, pigmented lesion | Benign |
| 25 | 38 | M | 58 days | Left eye | Small, dark, pigmented lesion | Benign |
| 26 | 39 | F | 60 days | Right eye | Small, dark, pigmented lesion | Benign |
| 27 | 40 | M | 62 days | Left eye | Small, dark, pigmented lesion | Benign |
| 28 | 41 | F | 64 days | Right eye | Small, dark, pigmented lesion | Benign |
| 29 | 42 | M | 66 days | Left eye | Small, dark, pigmented lesion | Benign |
| 30 | 43 | F | 68 days | Right eye | Small, dark, pigmented lesion | Benign |
| 31 | 44 | M | 70 days | Left eye | Small, dark, pigmented lesion | Benign |
| 32 | 45 | F | 72 days | Right eye | Small, dark, pigmented lesion | Benign |
| 33 | 46 | M | 74 days | Left eye | Small, dark, pigmented lesion | Benign |
| 34 | 47 | F | 76 days | Right eye | Small, dark, pigmented lesion | Benign |
| 35 | 48 | M | 78 days | Left eye | Small, dark, pigmented lesion | Benign |
| 36 | 49 | F | 80 days | Right eye | Small, dark, pigmented lesion | Benign |
| 37 | 50 | M | 82 days | Left eye | Small, dark, pigmented lesion | Benign |
| 38 | 51 | F | 84 days | Right eye | Small, dark, pigmented lesion | Benign |
| 39 | 52 | M | 86 days | Left eye | Small, dark, pigmented lesion | Benign |
| 40 | 53 | F | 88 days | Right eye | Small, dark, pigmented lesion | Benign |
| 41 | 54 | M | 90 days | Left eye | Small, dark, pigmented lesion | Benign |
| 42 | 55 | F | 92 days | Right eye | Small, dark, pigmented lesion | Benign |
| 43 | 56 | M | 94 days | Left eye | Small, dark, pigmented lesion | Benign |
| 44 | 57 | F | 96 days | Right eye | Small, dark, pigmented lesion | Benign |
| 45 | 58 | M | 98 days | Left eye | Small, dark, pigmented lesion | Benign |
| 46 | 59 | F | 100 days | Right eye | Small, dark, pigmented lesion | Benign |
| 47 | 60 | M | 102 days | Left eye | Small, dark, pigmented lesion | Benign |
| 48 | 61 | F | 104 days | Right eye | Small, dark, pigmented lesion | Benign |
| 49 | 62 | M | 106 days | Left eye | Small, dark, pigmented lesion | Benign |
| 50 | 63 | F | 108 days | Right eye | Small, dark, pigmented lesion | Benign |
| 51 | 64 | M | 110 days | Left eye | Small, dark, pigmented lesion | Benign |
| 52 | 65 | F | 112 days | Right eye | Small, dark, pigmented lesion | Benign |
| 53 | 66 | M | 114 days | Left eye | Small, dark, pigmented lesion | Benign |
| 54 | 67 | F | 116 days | Right eye | Small, dark, pigmented lesion | Benign |
| 55 | 68 | M | 118 days | Left eye | Small, dark, pigmented lesion | Benign |
| 56 | 69 | F | 120 days | Right eye | Small, dark, pigmented lesion | Benign |
| 57 | 70 | M | 122 days | Left eye | Small, dark, pigmented lesion | Benign |
| 58 | 71 | F | 124 days | Right eye | Small, dark, pigmented lesion | Benign |
| 59 | 72 | M | 126 days | Left eye | Small, dark, pigmented lesion | Benign |
| 60 | 73 | F | 128 days | Right eye | Small, dark, pigmented lesion | Benign |

22

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(vii) IMMEDIATE SOURCE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

21

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 60 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(vii) IMMEDIATE SOURCE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

60

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(vii) IMMEDIATE SOURCE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

21

(2) INFORMATION FOR SEQ ID NO:10:

(1) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

CATGCATATT CGACACTGGA A

21

(2) INFORMATION FOR SEQ ID NO:11:

(1) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 66 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(vii) IMMEDIATE SOURCE:
(B) CLONE: ZF2r6F

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

CAGTGTGCGA TATGCATGCG TAAC TTCNNK NNNKNNKNNK NNNKACCAC CCACATCCGC
ACCCAC

60
66

(2) INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 66 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(vii) IMMEDIATE SOURCE:
(B) CLONE: AFI6rb

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

CTGGCCTGTG TGGATGCGGA TATGMNNMNN MNNMNNMNNC GAMNNAGAAA AGCGGCGATC
GCAGGA

60
66

(2) INFORMATION FOR SEQ ID NO:13:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(vii) IMMEDIATE SOURCE:
(B) CLONE: ZFIF

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

CATATCCGCA TCCACACAGG CCAG

24

(2) INFORMATION FOR SEQ ID NO:14:

(1) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids

| Case | Age | Sex | Site | Pathologic | Survival |
|------|-----|-----|--------|----------------|----------|
| 1 | 60 | M | Rectum | Adenocarcinoma | 10 mo |
| 2 | 65 | M | Rectum | Adenocarcinoma | 12 mo |
| 3 | 68 | M | Rectum | Adenocarcinoma | 14 mo |
| 4 | 70 | M | Rectum | Adenocarcinoma | 16 mo |
| 5 | 72 | M | Rectum | Adenocarcinoma | 18 mo |
| 6 | 75 | M | Rectum | Adenocarcinoma | 20 mo |
| 7 | 78 | M | Rectum | Adenocarcinoma | 22 mo |
| 8 | 80 | M | Rectum | Adenocarcinoma | 24 mo |
| 9 | 82 | M | Rectum | Adenocarcinoma | 26 mo |
| 10 | 85 | M | Rectum | Adenocarcinoma | 28 mo |
| 11 | 88 | M | Rectum | Adenocarcinoma | 30 mo |
| 12 | 90 | M | Rectum | Adenocarcinoma | 32 mo |
| 13 | 92 | M | Rectum | Adenocarcinoma | 34 mo |
| 14 | 95 | M | Rectum | Adenocarcinoma | 36 mo |
| 15 | 98 | M | Rectum | Adenocarcinoma | 38 mo |
| 16 | 100 | M | Rectum | Adenocarcinoma | 40 mo |
| 17 | 102 | M | Rectum | Adenocarcinoma | 42 mo |
| 18 | 105 | M | Rectum | Adenocarcinoma | 44 mo |
| 19 | 108 | M | Rectum | Adenocarcinoma | 46 mo |
| 20 | 110 | M | Rectum | Adenocarcinoma | 48 mo |
| 21 | 112 | M | Rectum | Adenocarcinoma | 50 mo |
| 22 | 115 | M | Rectum | Adenocarcinoma | 52 mo |
| 23 | 118 | M | Rectum | Adenocarcinoma | 54 mo |
| 24 | 120 | M | Rectum | Adenocarcinoma | 56 mo |
| 25 | 122 | M | Rectum | Adenocarcinoma | 58 mo |
| 26 | 125 | M | Rectum | Adenocarcinoma | 60 mo |
| 27 | 128 | M | Rectum | Adenocarcinoma | 62 mo |
| 28 | 130 | M | Rectum | Adenocarcinoma | 64 mo |
| 29 | 132 | M | Rectum | Adenocarcinoma | 66 mo |
| 30 | 135 | M | Rectum | Adenocarcinoma | 68 mo |
| 31 | 138 | M | Rectum | Adenocarcinoma | 70 mo |
| 32 | 140 | M | Rectum | Adenocarcinoma | 72 mo |
| 33 | 142 | M | Rectum | Adenocarcinoma | 74 mo |
| 34 | 145 | M | Rectum | Adenocarcinoma | 76 mo |
| 35 | 148 | M | Rectum | Adenocarcinoma | 78 mo |
| 36 | 150 | M | Rectum | Adenocarcinoma | 80 mo |
| 37 | 152 | M | Rectum | Adenocarcinoma | 82 mo |
| 38 | 155 | M | Rectum | Adenocarcinoma | 84 mo |
| 39 | 158 | M | Rectum | Adenocarcinoma | 86 mo |
| 40 | 160 | M | Rectum | Adenocarcinoma | 88 mo |
| 41 | 162 | M | Rectum | Adenocarcinoma | 90 mo |
| 42 | 165 | M | Rectum | Adenocarcinoma | 92 mo |
| 43 | 168 | M | Rectum | Adenocarcinoma | 94 mo |
| 44 | 170 | M | Rectum | Adenocarcinoma | 96 mo |
| 45 | 172 | M | Rectum | Adenocarcinoma | 98 mo |
| 46 | 175 | M | Rectum | Adenocarcinoma | 100 mo |
| 47 | 178 | M | Rectum | Adenocarcinoma | 102 mo |
| 48 | 180 | M | Rectum | Adenocarcinoma | 104 mo |
| 49 | 182 | M | Rectum | Adenocarcinoma | 106 mo |
| 50 | 185 | M | Rectum | Adenocarcinoma | 108 mo |
| 51 | 188 | M | Rectum | Adenocarcinoma | 110 mo |
| 52 | 190 | M | Rectum | Adenocarcinoma | 112 mo |
| 53 | 192 | M | Rectum | Adenocarcinoma | 114 mo |
| 54 | 195 | M | Rectum | Adenocarcinoma | 116 mo |
| 55 | 198 | M | Rectum | Adenocarcinoma | 118 mo |
| 56 | 200 | M | Rectum | Adenocarcinoma | 120 mo |
| 57 | 202 | M | Rectum | Adenocarcinoma | 122 mo |
| 58 | 205 | M | Rectum | Adenocarcinoma | 124 mo |
| 59 | 208 | M | Rectum | Adenocarcinoma | 126 mo |
| 60 | 210 | M | Rectum | Adenocarcinoma | 128 mo |
| 61 | 212 | M | Rectum | Adenocarcinoma | 130 mo |
| 62 | 215 | M | Rectum | Adenocarcinoma | 132 mo |
| 63 | 218 | M | Rectum | Adenocarcinoma | 134 mo |
| 64 | 220 | M | Rectum | Adenocarcinoma | 136 mo |
| 65 | 222 | M | Rectum | Adenocarcinoma | 138 mo |
| 66 | 225 | M | Rectum | Adenocarcinoma | 140 mo |
| 67 | 228 | M | Rectum | Adenocarcinoma | 142 mo |
| 68 | 230 | M | Rectum | Adenocarcinoma | 144 mo |
| 69 | 232 | | | | |

(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

Arg Ser Asp Glu Leu Thr Arg His
1 5

(2) INFORMATION FOR SEQ ID NO:15:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

Ser Arg Ser Asp His Leu
1 5

(2) INFORMATION FOR SEQ ID NO:16:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

CGTAAATGGG CGCCCTTTTG GGCGCCCAT TACG

34

(2) INFORMATION FOR SEQ ID NO:17:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

Arg Ser Asp Glu Arg Lys Arg His
1 5

(2) INFORMATION FOR SEQ ID NO:18:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

[illegible]

Trp Ser Ile Pro Val Leu Leu His
1 . 5

(2) INFORMATION FOR SEQ ID NO:19:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

Trp Ser Leu Leu Pro Val Leu His
1 5

(2) INFORMATION FOR SEQ ID NO:20:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

Phe Ser Phe Leu Leu Pro Leu His
1 5

(2) INFORMATION FOR SEQ ID NO:21:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

Leu Ser Thr Trp Arg Gly Trp His
1 5

(2) INFORMATION FOR SEQ ID NO:22:

(1) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

Thr Ser Ile Gln Leu Pro Tyr His
1 5

(2) INFORMATION FOR SEQ ID NO:23:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 61 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

TGATCTCAGA AGCCAAGCAG GGTCGGGCCT GGTTAGTACT TGGATGGGAG ACCGCCTGGG
A

60
61

(2) INFORMATION FOR SEQ ID NO:24:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

Tyr Ile Cys Ser Phe Ala Asp Cys Gly Ala Ala Tyr Asn Lys Asn Trp
1 5 10 15
Lys Leu Gln Ala His Leu Cys Lys His Thr
20 25

(2) INFORMATION FOR SEQ ID NO:25:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

Phe Pro Cys Lys Glu Glu Gly Cys Glu Lys Gly Phe Thr Ser Leu His
1 5 10 15
His Leu Thr Arg His Ser Leu Thr His Thr
20 25

(2) INFORMATION FOR SEQ ID NO:26:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

Phe Thr Cys Asp Ser Asp Gly Cys Asp Leu Arg Phe Thr Thr Lys Ala
1 5 10 15
Asn Met Lys Lys His Phe Asn Arg Phe His
20 25

(2) INFORMATION FOR SEQ ID NO:27:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 bas pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

TGGATGGGAG ACC

13

(2) INFORMATION FOR SEQ ID NO:28:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

Arg Ser Asp Glu Arg Lys Arg His
1 5

(2) INFORMATION FOR SEQ ID NO:29:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

GTCCATAAGA TTAGCGGATC C

21

(2) INFORMATION FOR SEQ ID NO:30:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

GTGAGCGAGG AAGCGGAAGA G

21

(2) INFORMATION FOR SEQ ID NO:31:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

CCTGCGTGGG CGCCCTTTTG GCGCCCCACG CAGG

34

(2) INFORMATION FOR SEQ ID NO:32:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(B) LOCATION: 4...4

(D) OTHER INFORMATION: where Xaa at position 4 is Lys or Pro

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

Thr Gly Glu Xaa

1

(2) INFORMATION FOR SEQ ID NO:33:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 462 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION: 1...459

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:

| | |
|---|-----|
| ATG CTC GAG CTC CCC TAT GCT TGC CCT GTC GAG TCC TGC GAT CGC CGC | 48 |
| Met Leu Glu Leu Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg | |
| 1 5 10 15 | |
| TTT TCT CGC TCG GAT GAG CTT ACC CGC CAT ATC CGC ATC CAC ACA GGC | 96 |
| Phe Ser Arg Ser Asp Glu Leu Thr Arg His Ile Arg Ile His Thr Gly | |
| 20 25 30 | |
| CAG AAG CCC TTC CAG TGT CGA ATA TGC ATG CGT AAC TTC AGT CGT AGT | 144 |
| Gln Lys Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser | |
| 35 40 45 | |
| GAC CAC CTT ACC ACC CAC ATC CGC ACC CAC ACA GGC GAG AAG CCT TTT | 192 |
| Asp His Leu Thr Thr His Ile Arg Thr His Thr Gly Glu Lys Pro Phe | |
| 50 55 60 | |
| GCC TGT GAC ATT TGT GGG AGG AAG TTT GCC AGG AGT GAT GAA CGC AAG | 240 |
| Ala Cys Asp Ile Cys Gly Arg Lys Phe Ala Arg Ser Asp Glu Arg Lys | |
| 65 70 75 80 | |
| AGG CAT ACC AAA ATC CAT ACC GGR CAG AAG CCC ACT AGT GGC GGT GGT | 288 |
| Arg His Thr Lys Ile His Thr Xaa Gln Lys Pro Thr Ser Gly Gly Gly | |
| 85 90 95 | |

[illegible]

(2) INFORMATION FOR SEQ ID NO:34:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:

| | |
|---|-----|
| ATG CTC GAG CTC CCC TAT GCT TGC CCT GTC GAG TCC TGC GAT CGC CGC | 48 |
| Met Leu Glu Leu Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg | |
| 1 5 10 15 | |
| TTT TCT CGC TCG GAT GAG CTT ACC CGC CAT ATC CGC ATC CAC ACA GGC | 96 |
| Phe Ser Arg Ser Asp Glu Leu Thr Arg His Ile Arg Ile His Thr Gly | |
| 20 25 30 | |
| CAG AAG CCC TTC CAG TGT CGA ATA TGC ATG CGT AAC TTC AGT CGT AGT | 144 |
| Gln Lys Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser | |
| 35 40 45 | |
| GAC CAC CTT ACC ACC CAC ATC CGC ACC CAC ACA GGC GAG AAG CCT TTT | 192 |
| Asp His Leu Thr Thr His Ile Arg Thr His Thr Gly Glu Lys Pro Phe | |
| 50 55 60 | |
| GCC TGT GAC ATT TGT GGG AGG AAG TTT GCC AGG AGT GAT GAA CGC AAG | 240 |
| Ala Cys Asp Ile Cys Gly Arg Lys Phe Ala Arg Ser Asp Glu Arg Lys | |
| 65 70 75 80 | |
| AGG CAT ACC AAA ATC CAT ACC GGT CAG AAG CCC ACT AGT GGC GGT GGT | 288 |
| Arg His Thr Lys Ile His Thr Gly Gln Lys Pro Thr Ser Gly Gly Gly | |
| 85 90 95 | |
| CTG ACC GAC ACC CTG CAG GCG GAA ACC GAC CAG CTG GAA GAC GAA AAA | 336 |
| Leu Thr Asp Thr Leu Gln Ala Glu Thr Asp Gln Leu Glu Asp Glu Lys | |
| 100 105 110 | |
| TCC GCG CTG CAA ACC GAA ATC GCG AAC CTG CTG AAA GAA AAA GAA AAG | 384 |
| Ser Ala Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu Lys Glu Lys | |
| 115 120 125 | |
| CTG GAG TTC ATC CTG GCG GCA CAC GCT AGC GGC CAG GCC GGC CAG TAC | 432 |
| Leu Glu Phe Ile Leu Ala Ala His Ala Ser Gly Gln Ala Gly Gln Tyr | |
| 130 135 140 | |
| CCG TAC GAC GTT CCG GAC TAC GCT TCT TAA | 462 |
| Pro Tyr Asp Val Pro Asp Tyr Ala Ser | |
| 145 150 | |

(2) INFORMATION FOR SEQ ID NO:36:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 153 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(v) FRAGMENT TYPE: internal

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:36:

| | |
|---|--|
| Met Leu Glu Leu Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg | |
| 1 5 10 15 | |
| Phe Ser Arg Ser Asp Glu Leu Thr Arg His Ile Arg Ile His Thr Gly | |
| 20 25 30 | |
| Gln Lys Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser | |
| 35 40 45 | |
| Asp His Leu Thr Thr His Ile Arg Thr His Thr Gly Glu Lys Pro Phe | |
| 50 55 60 | |

Met Lys Leu Leu Glu Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg
1 5 10 15
Arg Phe Ser Lys Ser Ala Asp Leu Lys Arg His Ile Arg His Thr Gly
20 25 30

(2) INFORMATION FOR SEQ ID NO:42:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 98 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(v) FRAGMENT TYPE: internal

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:42:

Met Lys Leu Leu Glu Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg
1 5 10 15
Arg Phe Ser Lys Ser Ala Asp Leu Lys Arg His Ile Arg Ile His Thr
20 25 30
Gly Glu Lys Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe
35 40 45
Ser Lys Ser Ala Asp Leu Lys Arg His Ile Arg Ile His Thr Gly Glu
50 55 60
Lys Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe Ser Lys
65 70 75 80
Ser Ala Asp Leu Lys Arg His Ile Arg Ile His Thr Gly Gln Lys Pro
85 90 95
Thr Thr

(2) INFORMATION FOR SEQ ID NO:43:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 543 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION: 1...543

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:43:

ATG CTC GAG CTC CCC TAT GCT TGC CCT GTC GAG TCC TGC GAT CGC CGC 48
Met Leu Glu Leu Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg
1 5 10 15
TTT TCT CGC TCG GAT GAG CTT ACC CGC CAT ATC CGC ATC CAC ACA GGC 96
Phe Ser Arg Ser Asp Glu Leu Thr Arg His Ile Arg Ile His Thr Gly
20 25 30
CAG AAG CCC TTC CAG TGT CGA ATA TGC ATG CGT AAC TTC AGT CGT AGT 144
Gln Lys Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser
35 40 45
GAC CAC CTT ACC ACC CAC ATC CGC ACC CAC ACA GGC GAG AAG CCT TTT 192
Asp His Leu Thr Thr His Ile Arg Thr His Thr Gly Glu Lys Pro Phe
50 55 60
GCC TGT GAC ATT TGT GGG AGG AAG TTT GCC AGG AGT GAT GAA CGC AAG 240
Ala Cys Asp Ile Cys Gly Arg Lys Phe Ala Arg Ser Asp Glu Arg Lys
65 70 75 80

[illegible]

| | | | | | | | | | | | | | | | |
|------------|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----|
| Met 1 | Leu | Glu | Leu | Pro 5 | Tyr | Ala | Cys | Pro | Val 10 | Glu | Ser | Cys | Asp | Arg 15 | Arg |
| Phe | Ser | Arg | Ser | Asp 20 | Glu | Leu | Thr | Arg 25 | His | Ile | Arg | Ile | His 30 | Thr | Gly |
| Gln | Lys | Pro 35 | Phe | Gln | Cys | Arg | Ile 40 | Cys | Met | Arg | Asn | Phe 45 | Ser | Arg | Ser |
| Asp 50 | His | Leu | Thr | Thr | His | Ile 55 | Arg | Thr | His | Thr | Gly 60 | Glu | Lys | Pro | Phe |
| Ala 65 | Cys | Asp | Ile | Cys | Gly 70 | Arg | Lys | Phe | Ala | Arg 75 | Ser | Asp | Glu | Arg | Lys |
| Arg | His | Thr | Lys | Ile 85 | His | Thr | Gly | Glu | Lys 90 | Pro | Tyr | Ala | Cys | Pro 95 | Val |
| Glu | Ser | Cys | Asp 100 | Arg | Arg | Phe | Ser | Arg 105 | Ser | Asp | Glu | Leu | Thr 110 | Arg | His |
| Ile | Arg | Ile 115 | His | Thr | Gly | Gln | Lys 120 | Pro | Phe | Gln | Cys | Arg 125 | Ile | Ser | Met |
| Arg 130 | Asn | Phe | Ser | Arg | Ser | Asp 135 | His | Leu | Thr | Thr | His 140 | Ile | Arg | Thr | His |
| Thr 145 | Gly | Glu | Lys | Pro | Phe 150 | Ala | Cys | Asp | Ile | Cys 155 | Gly | Arg | Lys | Phe | Ala |
| Arg | Ser | Asp | Glu | Arg 165 | Lys | Arg | His | Thr | Lys 170 | Ile | His | Leu | Arg | Gln 175 | Lys |

Asp Ser Arg Thr Ser
180

(2) INFORMATION FOR SEQ ID NO:45:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 46 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:45:

GAGGAGGAGG AGGGATCCAT GCTCGAGCTC CCCTATGCTT GCCCTG

46

(2) INFORMATION FOR SEQ ID NO:46:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 39 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:46:

GAGGAGGAGA CCGGTATGGA TTTTGGTATG CCTCTTGCG

39

(2) INFORMATION FOR SEQ ID NO:47:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 57 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:47:

GAGGAGGAGA CCGGTGAGAA GCCCTATGCT TGCCCTGTGC AGTCCTGCGA TCGCCGC

57

(2) INFORMATION FOR SEQ ID NO:48:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 32 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:48:

GAGGAGGAGA CTAGTTCTAG AGTCCTTCTG TC

32

(2) INFORMATION FOR SEQ ID NO:49:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 38 base pairs
- (B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:49:

GATGTATGTA GCGTGGGCGG CGTGGGCGTA AGTAATGC

38

(2) INFORMATION FOR SEQ ID NO:50:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 38 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:50:

GATGTATGTA GCGTGGGCGG GGGCGGGGTA AGTAATGC

38

(2) INFORMATION FOR SEQ ID NO:51:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 38 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:51:

GATGTATGTA GCGGCGGCGG CGGCGGCGTA AGTAATGC

38

(2) INFORMATION FOR SEQ ID NO:52:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 29 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:52:

GATGTATGTA GCGTGGGCGT AAGTAATGC

29

(2) INFORMATION FOR SEQ ID NO:53:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 29 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:53:

GATGTATGTA GGGGCGGGGT AAGTAATGC

29

006020-00400500

(2) INFORMATION FOR SEQ ID NO:54:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 29 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:54:

GATGTATGTA GCGTGGGCGT AAGTAATGC

29

(2) INFORMATION FOR SEQ ID NO:55:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 41 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:55:

GAGGAGGAGG AATTCCGACA TTTATAATGA ACGTGAATTG C

41

(2) INFORMATION FOR SEQ ID NO:56:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 45 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:56:

TGCGCCCACG CCGCCCACGC GATGATTGGG AGCTTTTTTT GCACG

45

(2) INFORMATION FOR SEQ ID NO:57:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 51 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:57:

TCGCGTGGGC GCGTGGGCG CAAAAATTA TTATCATGGA TTCTAAAACG G

51

(2) INFORMATION FOR SEQ ID NO:58:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 42 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:58:

GAGGAGGAGG CGGCCGCAGG TAGATGAGAT GTGACGAACG TG

42

(2) INFORMATION FOR SEQ ID NO:59:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 45 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:59:

TGCCCCGCCC CCGCCCACGC GATGATTGGG AGCTTTTTTT GCACG

45

(2) INFORMATION FOR SEQ ID NO:60:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 51 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:60:

TCGCGTGGGC GGGGGCGGG CAAAAATTA TTATCATGGA TTCTAAAACG G

51

(2) INFORMATION FOR SEQ ID NO:61:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:61:

GCGTGGGCGG CGTGGGCG

18

(2) INFORMATION FOR SEQ ID NO:62:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:62:

GCGTGGGCGG GGGCGGGG

18

006020:00400560